



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Frank O'Bannon  
Governor

Lori F. Kaplan  
Commissioner

March 31, 2004

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[www.in.gov/idem](http://www.in.gov/idem)

TO: Interested Parties / Applicant

RE: Cornerstone Molding / 099-18378-00095

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER-AM.dot 8/11/03

March 31, 2004

Mr. Daryl Yoder  
Cornerstone Molding  
1586 3<sup>rd</sup> Road  
Bremen, Indiana 46506

Dear Mr. Yoder:

Re: Exempt Construction and Operation Status,  
099-18378-00095

The application from Cornerstone Molding, received on January 8, 2004 has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following residential wood trim painting operation, to be located at 1586 3<sup>rd</sup> Road, Bremen, Indiana 46506, is classified as exempt from air pollution permit requirements:

- (a) One (1) paint booth with a maximum capacity of 200 lineal feet of wood trim per hour, equipped with (1) one air-assisted airless spray system. PM overspray emissions will be controlled by dry filters.

The following conditions shall be applicable:

- (1) Volatile Organic Compounds (VOC) [326 IAC 8-2-12]  
Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

Airless Spray Application  
Air Assisted Airless Spray Application  
Electrostatic Spray Application  
Electrostatic Bell or Disc Application  
Heated Airless Spray Application  
Roller Coating  
Brush or Wipe Application  
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

- (2) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60,

Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

- (3) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the owner or operator of the residential wood trim coating operation shall comply with the following:
- (a) Operate the control device in accordance with manufacturer's specifications.
  - (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the owner or operator shall inspect the control device and do either of the following no later than four (4) hours after such observation:
    - (A) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
    - (B) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.
- (4) Any change or modification which may increase the potential to emit volatile organic compounds (VOC) to 10 tons per year or more, or PM/PM10 to 5 tons per year or more shall require prior approval of IDEM, OAQ before such change may occur.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

APD

cc: File - Marshall County  
Marshall County Health Department  
Air Compliance - Rick Reynolds  
Northern Regional Office  
Permit Tracking  
Compliance Data Section

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a New Exemption Source**

**Source Background and Description**

Source Name:	Cornerstone Molding
Source Location:	1586 3 <sup>rd</sup> Road, Bremen, Indiana 46505
County:	Marshall
SIC Code:	2431
Exemption No.:	099-18378-00095
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Cornerstone Molding relating to the construction and operation of a residential wood trim coating facility.

- (a) One (1) paint booth with a maximum capacity of 200 lineal feet of wood trim per hour, equipped with (1) one air-assisted airless spray system. PM overspray emissions will be controlled by dry filters.

**Recommendation**

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 8, 2004, with additional information received on February 8, 2004.

**Emission Calculations**

Paint Booth: The coatings to be used do not contain HAPs. See Page 1 of 1 TSD Appendix A of this document for detailed VOC and PM/PM10 emission calculations.

**Potential to Emit (of the Source or Revision) Before Controls**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	3.32
PM-10	3.32
SO <sub>2</sub>	0.0
VOC	9.61
CO	0.0
NO <sub>x</sub>	0.0

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of volatile organic compounds (VOC) are less than 10 tons per year and/or Particulate Matter (PM) or PM10 is less than 5 tons per year. Therefore, the source subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

### County Attainment Status

The source is located in Marshall County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marshall County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Marshall County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

### Source Status

New Source PSD Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	3.32
PM-10	3.32
SO <sub>2</sub>	0.0
VOC	9.61
CO	0.0
NO <sub>x</sub>	0.0
Single HAP	0.0
Combination HAPs	0.0

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

#### **Part 70 Permit Determination**

- (a) 326 IAC 2-7 (Part 70 Permit Program)  
This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:
  - (1) each criteria pollutant is less than 100 tons per year,
  - (2) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
  - (3) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

#### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 20 and 40 CFR Part 61, 63)
  - (1) 40 CFR Part 63.800, Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operation. This rule applies to each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located in a plant site that is a major source.  
  
The residential wood trim coating operation is not subject to this rule, as it does not emit HAPs.
  - (2) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) applicable to this source.

#### **State Rule Applicability – Entire Source**

- (a) 326 IAC 2-6 (Emission Reporting)  
This source is located in Marshall County and the potential to emit of VOC is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.
- (b) 326 IAC 5-1 (Visible Emissions Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability – Individual Facilities

- (a) 326 IAC 8-2-12 ( Surface Coating Emission Limitations: Wood Furniture and Cabinet Coating)

This rule applies to surface coated wood furnishings which include cabinets (kitchen, bath and vanity), tables, beds, chairs, sofas (non-upholstered), art objects, and any other coated furnishing made of solid wood, wood composition or simulated wood material.

The residential wood trim coating operation is subject to this rule, which requires the use of one (1) or more of the following application systems: airless spray application system, air-assisted airless spray application system, electrostatic spray application system, electrostatic bell or disc application system, heated airless spray application system, roller coat, brush or wipe application system or dip-and-drain application system.

The source is in compliance, as it is will be using air- assisted airless spray application system in the residential wood trim coating operation.

- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
This rule is not applicable to the source, as the coatings to be used do not contain any HAP.

- (c) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
The residential wood trim coating operation is subject to 326 IAC 6-3, which requires the following:
- (1) The source shall operate the control device in accordance with manufacturer's specifications.
  - (2) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:
    - (A) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
    - (B) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.  
If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

### Conclusion

The construction and operation of this residential wood trim coating operation shall be subject to the conditions of this **Exemption 099-18378-00095**.

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

Page 1 of 1 TSD App A

**Company Name:** Cornerstone Molding  
**Address City IN Zip:** 1586 3rd Road, Bremen, IN 46506  
**Exemption No.:** 099-18378  
**Plt ID:** 099-00095  
**Reviewer:** Aida De Guzman  
**Date:** January 8, 2004

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Paint Booth																
Sherwood T67F6	7.39	26.79%	0.00	26.79%	0.00	73.21%	0.002	200.00	1.98	1.98	0.79	19.01	3.47	3.32	2.70	65%
Four Wind Honey Oak	5.79	97.98%	0.00	97.98%	0.00	2.02%	0.001	200.00	5.67	5.67	1.13	27.23	4.97	0.04	280.84	65%
Sherwood T77HXF5709	7.39	72.80%	0.00	72.80%	0.00	27.20%	0.002	200.00	5.38	5.38	2.15	51.65	9.43	1.23	19.78	65%
Cleaning Solvent	7.19	100.00%	0.00	100.00%	0.00	0.00%	0.000	200.00	7.19	7.19	0.04	1.04	0.19	0.00	ERR	100%

**State Potential Emissions**

**Add worst case coating to all solvents**

**2.20**

**52.68**

**9.61**

**3.32**

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used